Base 75 Mineral Oil Reference Material

Product No: APS1065G
Lot No: 251117

Material and Intended Use

APS1065G is a mineral oil reference material (RM). The intended use of this RM is for the verification of combustion for the determination of sulfur, nitrogen, and chlorine. This RM can also be used to verify value assignment of in-house reference materials. A unit consists of one bottle containing 1 gallon of liquid material. All reference materials should be verified as fit for purpose prior to use.

Reported Values

Reference values for APS1065G are given in Table 1. Sampling and calculation of reported values for each measurand were performed using practices consistent with ISO 17034:2016 (1) and ISO 33405:2024 (2).

Table 1. Reference values for APS1065G, Lot 251117.

Property	Value
% Sulfur	< 0.0003
% Nitrogen	< 0.0001
% Chlorine	< 0.0001

%Sulfur – Values indicate the amount of the element present in the material matrix as determined using combustion with ultraviolet fluorescence spectroscopy. Values are metrologically traceable to the International System of Units (SI) derived unit of mass fraction expressed as percent (%).

%Nitrogen – Values indicate the amount of the element present in the material matrix as determined using oxidative combustion with chemiluminescence. Values are metrologically traceable to the International System of Units (SI) derived unit of mass fraction expressed as percent (%).

%Chlorine – Values indicate the amount of the element present in the material matrix as determined using oxidative pyrohydrolytic combustion with ion chromatography. Values are metrologically traceable to the International System of Units (SI) derived unit of mass fraction expressed as percent (%).

Instructions for Use

This product requires no preparation prior to use. Bottles of liquid should be kept sealed tight and stored in a cool, dry location.

Minimum Sample Size

It is recommended that no less than 10 µL of RM material be used.

Period of Validity

Reported values are valid for 5 years from the initial report date provided the RM is handled and stored in accordance with the instructions given in this certificate (see “Instructions for Use”). The assigned values are nullified if the RM is damaged, contaminated, or otherwise modified.

Homogeneity

This product was manufactured using blending to minimize heterogeneity. Samples were randomly selected using practices consistent with ISO 33405:2024. Homogeneity was evaluated by replicate analysis. Within- and between-sample variance was evaluated using Analysis of Variance (ANOVA).

Maintenance of the Reference Material Certificate

Alpha Resources will monitor this RM throughout the period of its availability. If substantive technical changes occur that affect the value assignment, AR will notify the purchaser.

Users of this RM should ensure the Reference Material Certificate in their possession is current. This can be accomplished by contacting Alpha Resources at the following: Telephone - (269) 465-5559; Email - info@alpharesources.com; or via the Internet - https://www.alpharesources.com.

Methods and References

(1) ISO 17034:2016 – General requirements for the competence of reference material producers.
(2) ISO 33405:2024 – Reference materials – Approaches for characterization and assessment of homogeneity and stability.

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